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ABSTRACT

A seven step strategy is presented for selecting a "good" test in an educational setting. The steps are as follows: (1) make the following preliminary decisions: (a) decide why you need to test, (b) decide what you intend to do with the results, (c) decide what practical decisions will be made based on the testing results, and (d) decide who will make those decisions and who will be affected by those decisions; (2) form a Test Selection and Review Committee composed of decisionmakers and those who will be directly affected by the results of the testing; (3) search the formal literature for information about published and unpublished tests; (4) talk to test experts in other schools or colleges; (5) tentatively select one or more tests and pilot it; (6) evaluate the process and the products of the testing program; and (7) hold open the option to cycle back to any previous stage as the need arises. (Author)

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A SEVEN STEP STRATEGY

FOR

CHOOSING A "GOOD" TEST

This is the text of a presentation made as chairperson of an interest session panel during the 1974 Southern California Testing Conference held at the downtown Convention Center in Los Angeles.

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March 15, 1974

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A SEVEN STEP STRATEGY FOR CHOOSING A "GOOD" TEST

Section I. Introduction

This short paper will present the text of an oral and written presentation made by the author when serving as a chairperson of a panel during the State 1974 Testing Conference held at the Los Angeles Convention Center on February 28, 1974. This conference on the use of tests and other measuring devises in education was attended by more than 373 educators. The main speakers at the conference were Dr. Peter Bentley, Professor of Psychology at the University of California at Los Angeles and Dr. William Michael, Professor of Psychology and Education, University of Southern California. Dr. Bentley's address concerned "Reliability, Validity and Norming", and Dr. Michael's address concerned " The Present and Future State of the Testing Art". Several special interest sessions were provided for attendees. These interest sessions included: (1) cognitive - language arts, (2) cognitive - mathematics and science, (3) cognitive - other, (4) affective, (5) career education, and (6) bilingual and/or disadvantaged. While the present paper describes the presentation made by the writer who acted as chairperson of the panel which focused on the cognitive - mathematics, science interest section area, it is recognized that this strategy is probably appropriate for use in the selection and utilization of any test by any educational agency.

Section II. A Seven Step Strategy for Selecting a "Good" Test

This strategy includes the following seven steps: Step 1: Make the following preliminary decisions: (a) Decide why you need to test, (b) Decide what you intend to do with the results, (c) Decide what practical decisions will be made based on the testing results, and (d) Decide who will make those decisions, and who will be affected by those decisions; Step 2: Form a Test Selection and Review Committee composed of decision-makers and those who will be directly affected by the results of the testing; Step 3: Search the formal literature for information about published and unpublished tests; Step 4: Talk to test experts in other schools or colleges; Step 5: Tentatively select one or more tests and pilot it; Step 6: Evaluate the process and the products of testing program; and Step 7: Hold open the option to cycle back to any previous stage as the need arises.

Step 1: Make Preliminary Decisions.

First of all one should ask himself: "Why is testing necessary?; What will be done with the results?; What practical decisions will be reached based on the results of testing?; Who will be making the decisions?; and finally, who will be most directly affected by those decisions?"

Selecting the "best" test is similar to selecting the "best" carpenter's tool. Instead of asking "Which is best, Test A or Test B?" one

could ask a carpenter, "Which is "best", a hammer or a saw?" Obviously the answer depends on what job is to be done by the carpenter's tool. In building a house a carpenter may view the half-framed structure and decide he wants to strengthen the studs by driving nails, so he grabs his hammer in order to do that particular job. While the notion of identifying the purpose of the activity first, appears to be an exercise in common sense, it is nevertheless an important and necessary step which is often overlooked. Many times an educator finds himself holding a hammer and searching for something to do with it.

While answers to the questions of, "What decisions will be made based on the test results?," and "Who will be most directly affected by the testing results?" may not be among the easiest answers to uncover, a little time spent on these will be well worth the time of the person charged with the reponsibility of test selection and use.

Step 2: Establish a Test Selection and Review Committee.

Secondly, one should form a Test Selection and Review Committee. This committee should include representatives from two main groups: (1) those who will be making decisions based on the testing results, and (2) those who will be most directly affected by testing results. While one may initially be reluctant to attend "another meeting", one should recognize that the Test Selection and Review Committee can be very productive. This committee serves two important functions: (1) it forms a forum for communication to all affected segments, and (2) it can provide a "we" feeling among the participants. Much

attention has been focused on the use and abuse of tests, and the wise test selector will afford better communication, and broaden his base if he establishes and directs meetings of a Test Selection and Review Committee. A misinformed citizen may easily attack a single individual who has selected tests by himself alone, but that same misinformed citizen will probably calm down when he talks to a person who represents him and his group on the Test Selection and Review Committee.

Step 3: Search the Formal Literature.

The third step is to search the "literature". Several excellent books and booklets cover the testing instruments that are now being offered for sale to potential users. The Mental Measurements Yearbook is an important source book. The most recent edition was published in 1970. Another important book is entitled, Tests in Print. Both the Yearbook and Tests in Print are edited by Oscar Buros. The Dissemination Office of the Center for the Study of Evaluation at the University of California at Los Angeles publishes a number of documents which also review tests. Among these UCLA documents are the following: (a) CSE-ECRC Preschool/Kindergarten Test Evaluations, (b) CSE Elementary School Test Evaluations, (c) CSE-HLP Test Evaluations: Test for Higher Order Cognitive Affective, and Interpersonal Skills. Soon to be published by the UCLA Center for the Study of Evaluation is a document which will deal with evaluation of tests which are used in secondary schools, in colleges and for adults.

In addition, virtually every test publisher will send basic information on catalogues about their test(s) to those who indicate an interest. Publishers usually offer for sale for a small fee ($2.00 to $5.00) a "specimen set" of materials relating to a test they sell. Moreover, test manuals are usually for sale for a small fee. Thus one could build a file "bank" of basic test information sheets, test catalogues, specimen sets, and test manuals.

Step 4: Talk to the Experts.

The fourth step in this Test Selection Strategy is to talk to as many testing experts as possible. If one is located in a college or school district one can uncover several names of reputable test authorities in other colleges or school districts. It is in this step that one recognizes that the wheel or a portion of it may have already been invented elsewhere. At the very least one will find that others are facing similar problems in certain ways which may or may not have some applicability to one's own local situation.

Step 5: Do a Pilot Study.

Ideally, once the array of test information has been established and reviewed by the Test Selection Committee, the committee should select one or more tests in order to do a pilot study. Ideally, the pilot study results would be reviewed by the committee before larger scale utilization of the test takes place. If the situation is not so ideal, and a decision on a test for large scale utilization is needed, the committee might find it advisable to use what is considered the "best" test on the required large scale and to use the "second best"

test on a smaller scale. This second kind of "piloting" would provide comparative information on both tests and safeguard against putting all the "testing eggs" in one basket.

Step 6: Evaluate.

Step six involves evaluating both the process and product objectives of the testing program. Both high level administrators and those on the Test Selection and Review Committee should periodically take a hard look at the testing program including what it does well, what it does not do well, and what activities should be planned to improve it. Especially important here is the development of local indicators of the testing program's level of success. It will be extremely beneficial to establish local norms, and local indicators of the validity of tests and subtests for the total population that takes the test as well as for subgroups of that total population. Certain standard textbook information which is readily available may prove beneficial. (Best, 1970; Bloom, 1971; Cronback, 1960; and Marascuilo, 1971; Worthen, 1973.)

Step 7: Be "Dynamic".

Finally, step seven involves holding open the option to cycle back to any previous step as the need arises. Local indicators of the success level of the program may point out areas which offer opportunities for improvement. In addition, the needs which prompt the creation, implementation, and management of the testing program probably will change over the years. This step is a reminder that the choosing and the using of tests in education are such important

processes that they must be open to considered intervention aimed at the improvement of services which are provided.

Section III. Conclusion

A Seven Step Strategy has been proposed for selecting and using a "good" test in an educational setting. While the strategy was developed for presentation at the Cognitive - Mathematics and Science Interest Session at the Southern California Testing Conference, it is recognized that this strategy may be appropriate to the selection and utilization of any test or other measurement instrument by any educational agency.

APPENDIX I

PLANNED FOR, BUT NOT LIMITED TO:

Assistant Superintendents - Instruction
Directors of Research & Pupil Personnel Services and Curriculum
Federal Project Directors
Evaluators
Principals - ECE
Counselors

PROGRAM

8:30- 9:00 REGISTRATION AND COFFEE

9:00-10:00 GENERAL SESSION

Speaker: Dr. Peter Bentler
Professor of Psychology
UCLA

TOPIC: RELIABILITY, VALIDITY AND NORMING

10:15-11:15 INTEREST SESSIONS

1. Cognitive - Language Arts (Elem.)
2. Cognitive - Language Arts (Sec.)
3. Cognitive - Math, Science (Elem.)
4. Cognitive - Math, Science (Sec.)
5. Cognitive - Other areas (Elem.)
6. Cognitive - Other areas (Sec.)
7. Affective
8. Career Education
9. Bilingual and/or Disadvantaged

These sessions will involve panels of experts, including representatives from major test publishing areas and specialists from academic and school communities. The content will include a discussion of the commonalities of tests within session areas with specific reference to function, historical development, norming sample, and validation procedures.

SESSIONS 1 THROUGH 7 *will be repeated in the afternoon to give participants the opportunity to attend sessions in two areas.* **SESSION 8** *will be given once in the morning,* **SESSION 9** *will be given once in the afternoon.*

11:00-12:30 PUBLISHERS' EXHIBIT AREA

12:30- 2:30 LUNCHEON SESSION

Speaker: Dr. William Michael
Professor of Psychology and Education
USC

TOPIC: THE PRESENT AND FUTURE STATE OF THE TESTING ART

3:00- 4:00 INTEREST SESSIONS

2:30- 5:00 PUBLISHERS' EXHIBIT AREA

REGISTRATION FEE
(Including Luncheon)

$7.00 Pre-registration by February 15, 1974

8.50 At the door

On-site parking is available at the Convention Center

PRE-REGISTRATION FORM

TESTING CONFERENCE AND EXHIBITION
FEBRUARY 28, 1974

NAME _____

POSITION _____

DISTRICT _____

ENCLOSED IS MY CHECK FOR $ _____
(PLEASE MAKE PAYABLE TO Los Angeles County Superintendent of Schools)

PLEASE RETURN BY FEBRUARY 15, 1974 TO:
DR. GORDON FOOTMAN, DIRECTOR
DIVISION OF RESEARCH AND PUPIL PERSONNEL SERVICES
LOS ANGELES COUNTY EDUCATION CENTER
9300 EAST IMPERIAL HIGHWAY
DOWNEY, CALIFORNIA 90242

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Benjamin S. Bloom, J. Thomas Hastings, and George F. Madaus, Handbook on Formative and Summative Evaluation of Student Learning McGraw-Hill, San Francisco, 1971.

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Leonard Marascuilo. Statistical Methods for Behavioral Science Research McGraw-Hill, San Francisco, 1971.

Blaine R. Worthen and James R. Sanders, Educational Evaluation: Theory and Practice, Wadsworth Publishing. Belmont, California, 1973.

Some other sources of information on tests and measuring instruments are:

Buros, Oscar K. (ed.) Reading Tests and Reviews. Highland Park, New Jersey; Gryphon Press, 1968.

Educational and Psychological Measurement. Quarterly Journal.

Educational Index.

Educational Testing Service, Microfiche File, Princeton, New Jersey. This is a file of measures and instruments reported by researchers in the literature. It is important to state measurement needs in clear and specific terms in order for ETS to match a request to an appropriate measure, if one exists.

ERIC (Educational Resources Information Center): There are nineteen clearing-houses, depending on the nature of the need. For general information regarding information retrieval resources, procedures, and publications, contact: USOE, 400 Maryland Avenue SW, Washing D.C. 20202.

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